MALMÖ LIVE KONSERTHUS
www.malmolive.se

TECHNICAL SPECIFICATION
CONCERT HALL

MALMÖ LIVE KONSERTHUS
www.malmolive.se

CONTENT

Version: 3.0
Revision Date: 2021-06-09
Revised by:
Maria Sjöström

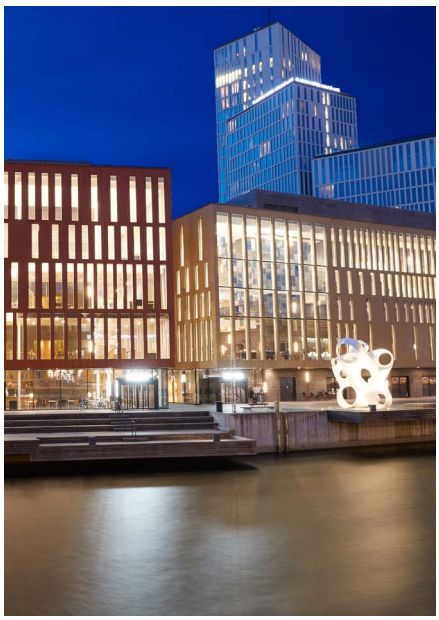
MALMÖ LIVE KONSERTHUS
www.malmolive.se

GENERAL INFORMATION

Please observe that all technical requirements need to be agreed upon in advance with our technical coordinator. Some of the technical equipment is shared between the Concert Hall and the black box theater, The Cube.

ORG NR
556003-7482

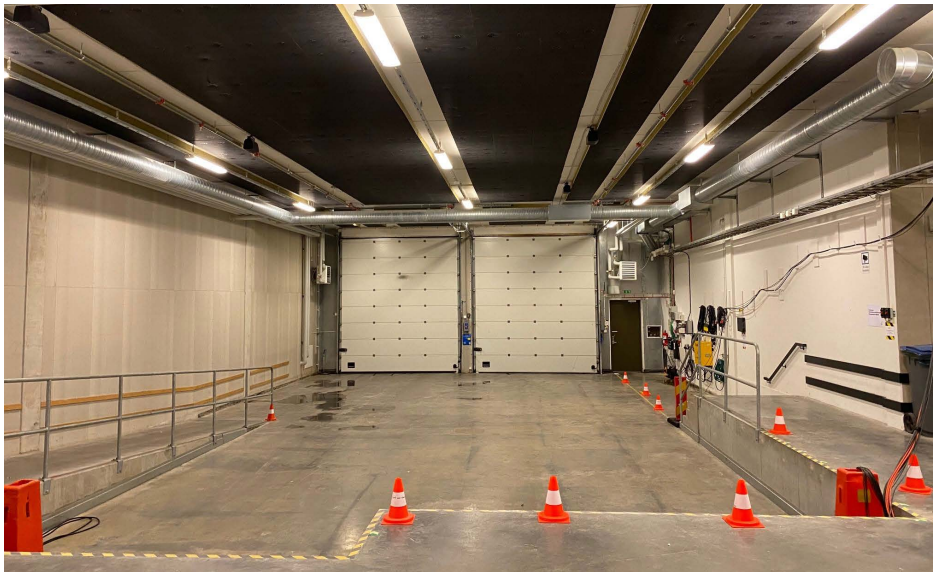
ADDRESS
Load in: Beringsgatan 3, 211 18 MALMÖ
Visitors: Dag Hammarskjölds torg 4, 211 18 MALMÖ
Post: Malmö Live Konserthus, 205 80 MALMÖ
GPS: 55.607817, 12.993672

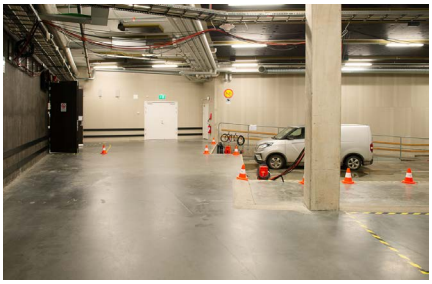


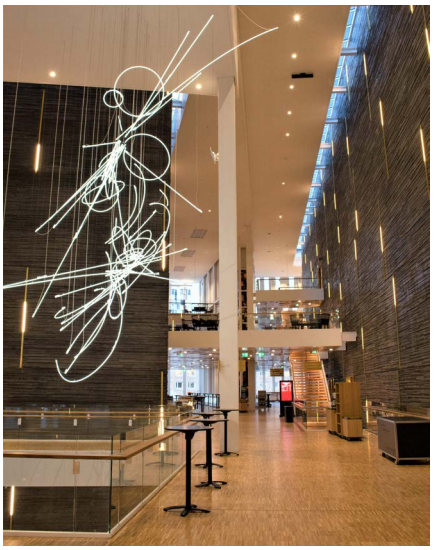
WIFI
Connect to the SSID ”City of Malmo”
Follow the onscreen instructions.
On some devices you may have to open up a web browser to be able to get to the portal.

HOTEL
Clarion Hotel Malmö Live
Address: Dag Hammarskjölds torg 2, 211 18 Malmö
Phone: +46 40-20 75 00
www.nordicchoicehotels.se/clarion/clarion-hotel-congress-malmo-live/

RESTAURANT
Kitchen & Table +46 40-20 75 02
malmo@kitchenandtable.se
Eatery Social Taqueria +46 40-20 75 37
malmo@eaterysocial.se







LOAD IN

The loading dock is located to the right of the concert hall stage. The loading bay is on the stage floor level. A lift is therefore not needed. The dock has room for two trailers. Park the truck with the front towards the street. The loading area is shared with Clarion Hotel and Congress. Access needs to be prearranged before arrival.

DIMENSIONS
Clearance: 4,2 m
Length and width Lane 1: 18,7m x 4m
Length and width Lane 2: 17,6m x 4m
Clearance and width Gateway; 4,2m x 4m
Height Loading Bay: 0,8m

POWER
3x 63A for tour bus convenience.

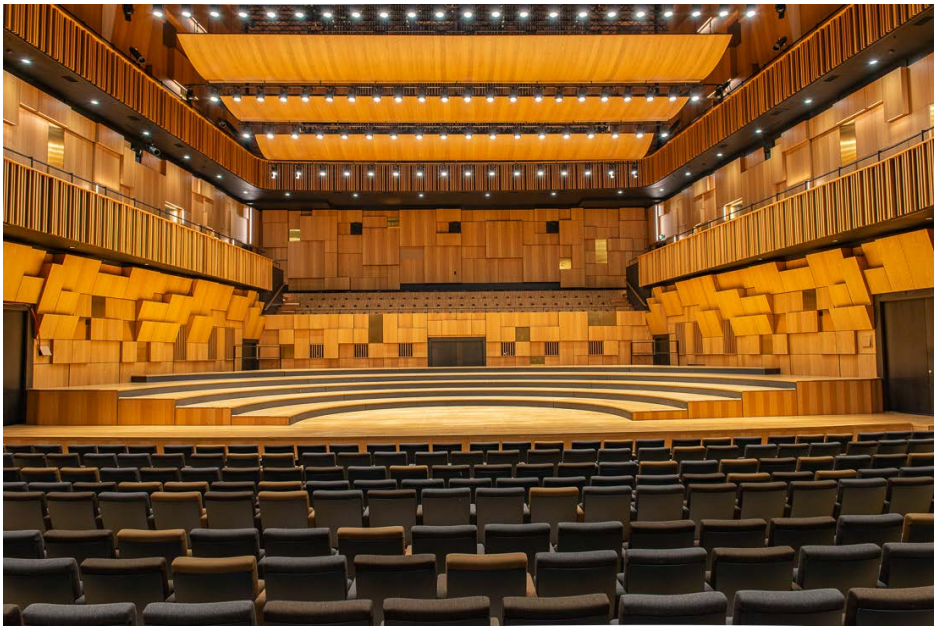
Outside there is a parking space for broadcast vans next to a cable hatch. A special permit is needed.

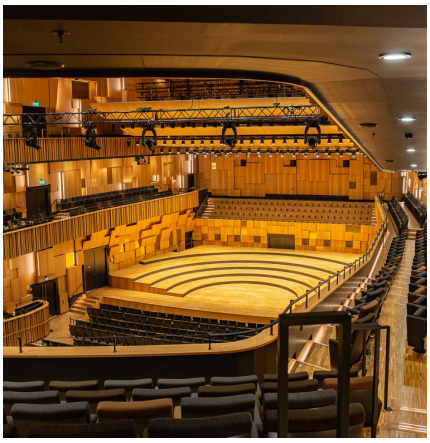
LOAD IN (DOORWAY / STAGE ACCESS)
Clearance: W 1,9m x H 2,6m

ELEVATORS
A 1930 kg max load freight elevator, 3 x 2 x 2,30m, serve from the loading bay down to the basement and up to the third floor. In the backstage corridor there is a passenger elevator with access from the basement to the sixth floor.

COMMON AREAS
Common Areas are shared indoor public spaces in between the Concert hall, the Clarion Hotel and Congress hall and the Cube black box. Visitors, exhibition stands and other installations related to the Congress are likely to be present. Please refer to appendix (I) for overview plan.

DRESSING ROOMS
Requests have to be agreed in advance with our production manager.





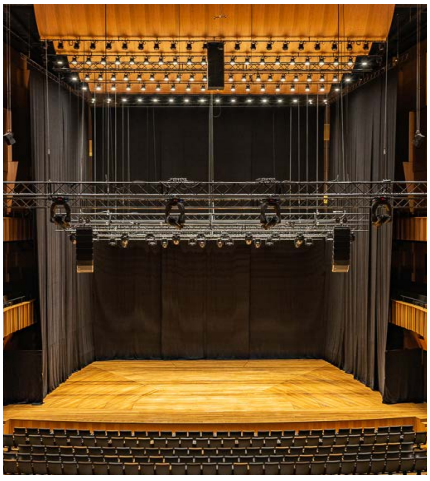
STAGE

The stage floor is made in oak wood and divided in 21 sections. The down stage and center area are fixed in height. The sections are lift mounted and can be individually raised to a maximum 1,2m (3'). The stage extension is generally used for front row, but can be raised to add an extra 2m (6') to the stage depth or lowered to serve as an orchestra pit.

Please refer to appendix VI and VII for stage plan and loading table.

MEASUREMENTS
Height: 0,8m.
Width DS: 21m. Width US: 16m.
Depth CL: 14m.
Weight limit: 500kg/m² (approx: 100lb/ft²)
Clearance: 20m (Stage floor <~> Acoustic ceiling)

ACOUSTICS
Above the stage are five computer controlled hoist mounted acoustic ceilings for optimization of the orchestra sound spread and dispersion. The concert hall has a reverberation time of 2.1 s. Motorized curtains are installed in the ceiling along the walls for damping the sound when needed. The auditorium seats have a zero sum sound consumption construction. Whether someone is seated or not has no influence on the sound. Walls and ceiling are constructed in an elaborate square pattern of oak and brass panels for optimum sound diffusion.



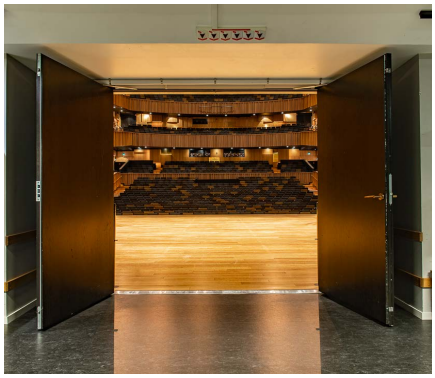
BLACKBOX
For the concerts that need a shorter time of reverberation and/or a darker stage room, it's possible to get molton fabrics around the stage. The fabrics are 18 meter high and have openings for entrances.

MALMÖ LIVE KONSERTHUS
www.malmolive.se

POWER

400A power outlet for extra lighting power distribution are located in the stage right wing in following configuration.

- Powerlock 400A connectors
- CEE 3x125A
- CEE 3x63A
- CEE 3x32A
- CEE 3x16A



Power outlets for sound equipment are located in the stage left wing. All specific sound power outlets are green coloured.

- CEE 3x63A (green)
- CEE 3x63A

230V 10A backline and instrument power is distributed down stage and across the stage in green marked Schuko outlets inside floor pockets.

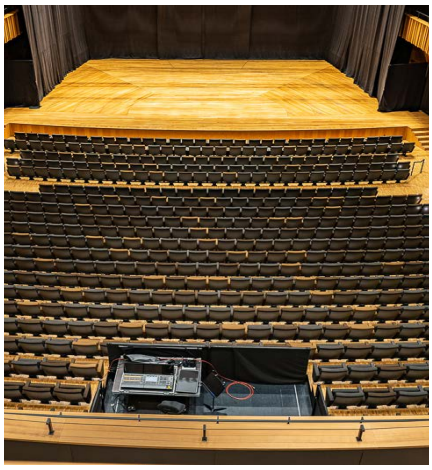
FRONT OF HOUSE

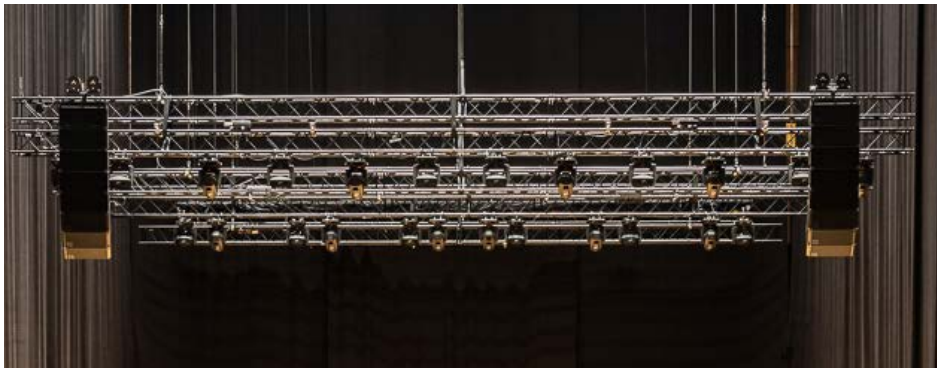
The FOH is positioned in the center of the auditorium. The floor is lift mounted. Heavy equipment can thereby be rigged from the basement. There are separate outlets for sound and lighting power as well as digital and analog connectors for sound, lighting, video, ethernet and house lights control.

POWER
1x10A Green CEE and Schuko connectors
2x10A Schuko

DIMENSIONS
Width: 4m (13'). Depth: 2m (6').

CONTROL ROOM
Two sound proof control rooms with windows facing the stage are adjacent with the auditorium. There are connections for sound, lighting, computers and video.





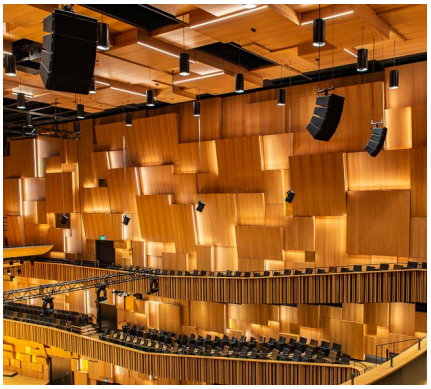
MALMÖ LIVE KONSERTHUS
www.malmolive.se

SOUND

MIXING CONSOLE FOH
- Yamaha Rivage PM7
- Stagebox: 2 x RIO 3224-D2 (64 in/32 out. 16 AES out)

PA SYSTEM
- 8x D&B Vi8 per side
- 6x D&B V Subs on top
- 4x D&B V Subs on stage floor
- 8x D&B T10 for front fill

DELAY 3d BALCONY
- 4x D&B Vi8 per side
- 4x D&B Vi12 Center
- 4x D&B T10 per side (outfills)



PA SYSTEM SETUP
- FULLRANGE
- PA - SUBS
- PA - FRONTFILLS - SUBS

PA access via ANALOG or AES from FOH or S.L

WIRELESS
SONY DIGITAL WIRELESS SYSTEM
- DWM-02 handmics with DPA / Shure capsels
- DWP-B01 beltpacks with DPA headmics

SHURE PSM1000 IEM SYSTEM
- Shure P10R Beltpacks with Shure 535 headphones

MONITOR
- D&B MAX2 (2-Way passive 15” / 1.4” coax floor wedge) with d&b amps
- EM Acoustics EPX8 (active 8” coax floor wedge)
- EM Acoustics MSE 159SP / HALO CSC (suitable for S-fills)

Both digital and analog patch panels are located offstage left and FOH.
Amplifiers and processors are to be found on the fifth floor.

LIGHTS

LIGHTING CONSOLE

- GrandMa 2 Light, Silent.

NETWORK PROTOCOL

- Streaming ACN, sACN.

DMX512 is transmitted in a sACN network and accessed through ETC Gateways. The light network RJ45 data sockets are mounted in plug-in boxes ditributed throughout the concert hall and labeled NE(nnn). Lighting trusses have wired DMX connection from grid mounted Cat6 cable spring reels.

DMX UNIVERSES

- Universe 1: Dimmers
- Universe 2: Moving Front Lights
- Universe 3 and 4: Moving Lights
- Universe 11: Orchestra Down Lights
- Universe 12: House Lights

Please refer to appendix (III) for detailed DMX patch.

DIMMERS

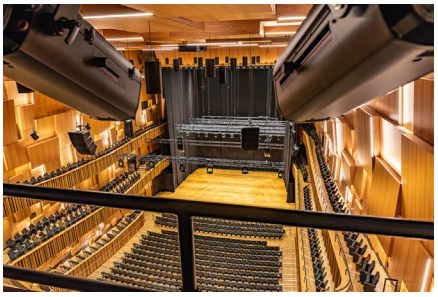
- ETC Sensor 3 Power Control System with Thru Power Modules.
- 487 dimmer channels 2,3 kW
- 21 dimmer channels 5kW

The Dimmer racks are located on the fifth floor. The dimmer channels are distributed around the house in variously configured plug-in boxes. Socapex cables are dropped from the grid to power the lighting trusses.

LIGHTS

FIXTURES

- 12x Clay Paky Aleda B-EYE K20, LED Washes
- 12x JB Lighting P12 HC, Profile
- 6x ADB Warp, Motorized zoom profile 12°-30°, 800W
- 26x Robert Juliat 710SX, zoom profile, 10° – 25°, 2kW



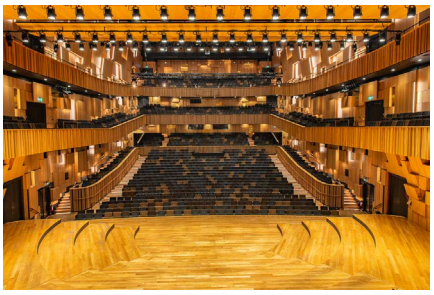
FOLLOW SPOTS

- 2x Robert Juliat Cyrano 1015M, 2500W HMI

Please refer to Appendix (II) and (III) for Lighting Plot and DMX patch.

HOUSE LIGHTS

The house lights consist of LED down lights and recessed LED strips in the wall and ceiling panels. On balconies are rail mounted spot lights. The house lights can be controlled from the lighting console or from a separate panel.

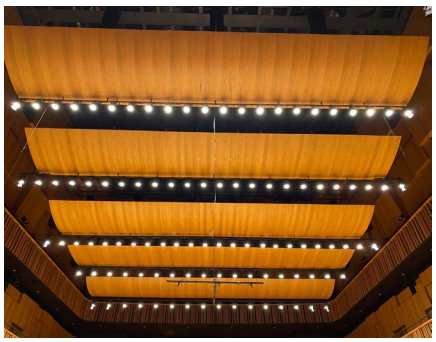


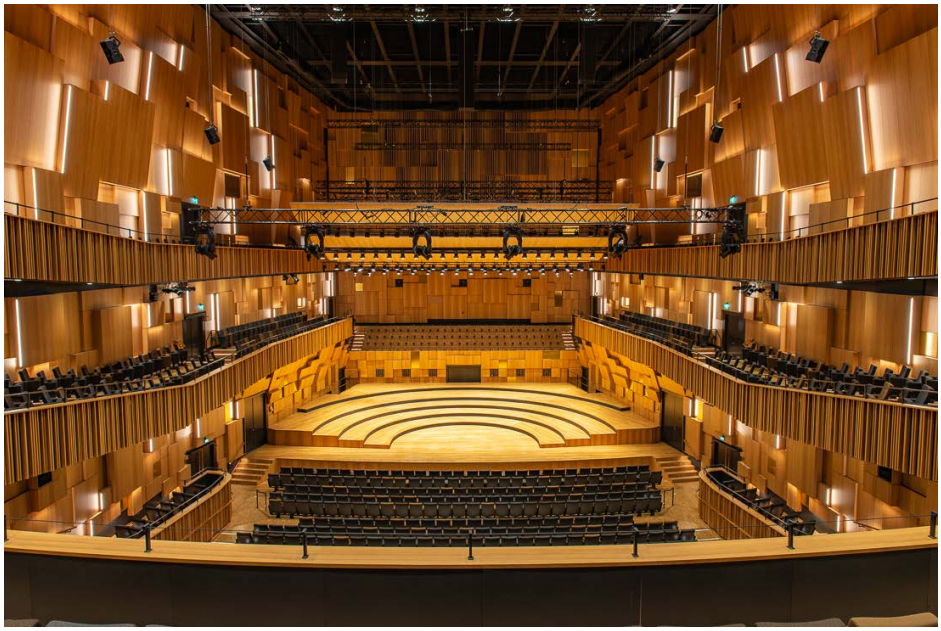
Please note that the LED strips on the stairs and the row number lights are to be left on during concert for audience safety reasons.

ORCHESTRA DOWNLIGHTS

- 104x ETC Desire D40 Studio Tungsten

The orchestra's downlight are mounted on battens on the acoustic ceiling and floods the whole of the stage. The fixtures have individual DMX-adresses and can be controlled both from the lighting console and from a separate panel.



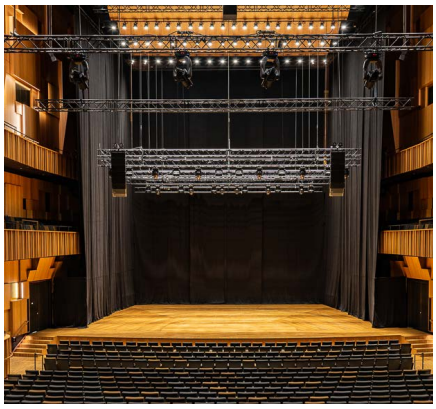


RIGGING

Please refer to appendix (IV) and (V) for rigging plan and load table.

The flown equipment hangs in a computer controlled point hoist system. There are all in all 30 point hoists of which 27 have a max lifting capacity of 500 kg each. The PA speakers are hung in three separate 1000 kg points.

The grid floor above stage is a steel grille that enables cable drops.



TRUSS

- Hofkon 400-4 black for lighting
- Hofkon 290-2 black for back and side drops

Rigging possibilities above stage are limited by the acoustic ceiling. Please discuss rigging matters with our technical coordinator in advance.

MISCELLANEOUS

Risers
There are 60 aluminum 2 x 1 m risers available.
Legs: 20, 40, 60, 80, 120 mm

MALMÖ LIVE KONSERTHUS
www.malmolive.se

VIDEO PROJECTION

The projector is located in a sound proof booth at the back of the auditorium. The distance to the projection screen is 42m. The video signal is distributed in an optic fiber net with outlets in many places throughout the house, the stage wings, FOH and the control room. The video patch is located on the fifth floor.

PROJECTOR

- Panasonic PT-DZ16K
- Brightness: 16000 lm
- Resolution: 1920 x 1080 px

LENS

- ET-D75LE30 (2:4 – 4.7:1)

VIDEO STREAM DISTRIBUTION

Transmitter

- Crestron DM-TX-201-S

Receiver

- Crestron DM-RMC-Scaler-S

Media Switcher

- Crestron DM-MD8X8-RPS

Fiber

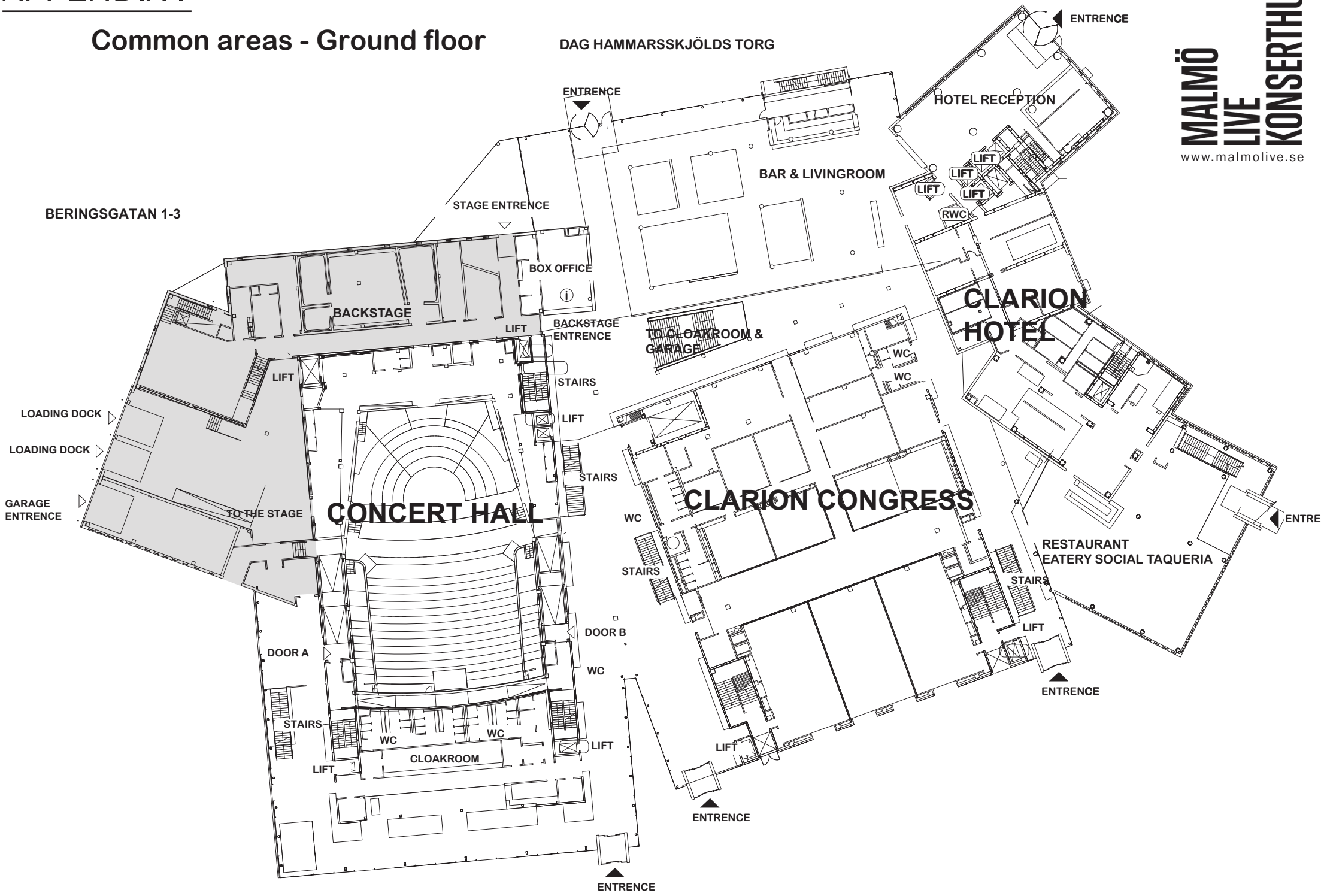
- Neutrik opticalCon Advanced Duo MultiMode. NK02M-A-0-(nn)

SCREEN

The projection screen is motorized and positioned in a truss 13 meter DS.
Width: 12m Height: 7m

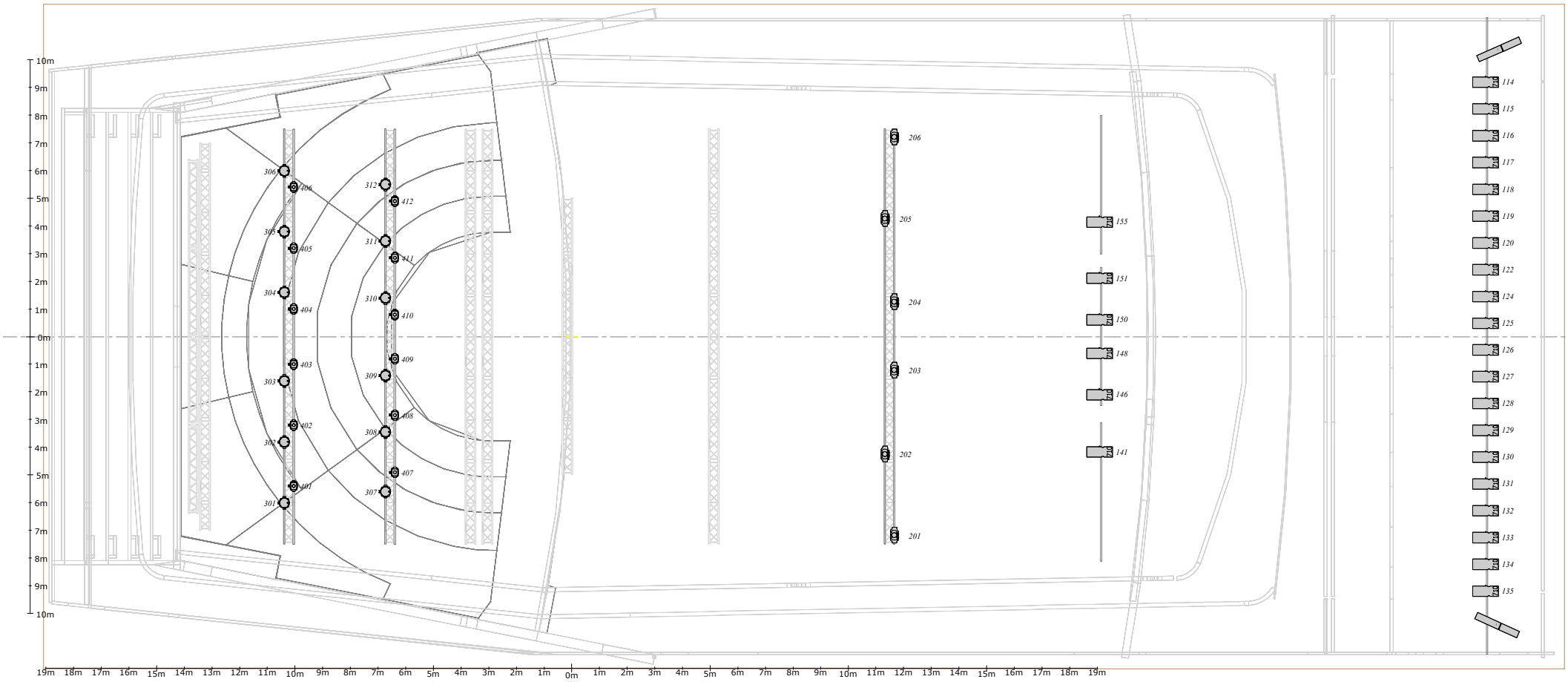
APPENDIX I

Common areas - Ground floor



MALMÖ LIVE KONSERTHUS
www.malmolive.se

APPENDIX II



Symbol	Name	Count	Wattage	Mode
	710SX	26	2000	
	Cyrano	2	2500	
	Aleda K20 B-EYE	12	750	Shapes
	P12	12	800	1
	Warp/M 12-30deg	6	900	

Concert Hall Tech Spec

Malmö Live Concerthall

Lighting Designer	Martin Berglund		
Cell	+46708 308354		
Printed By	Wysiwyg	**Print Time**	Mar/16/21
		File	Ny_Konsertsal_Techspec_210311.wyg

APPENDIX III

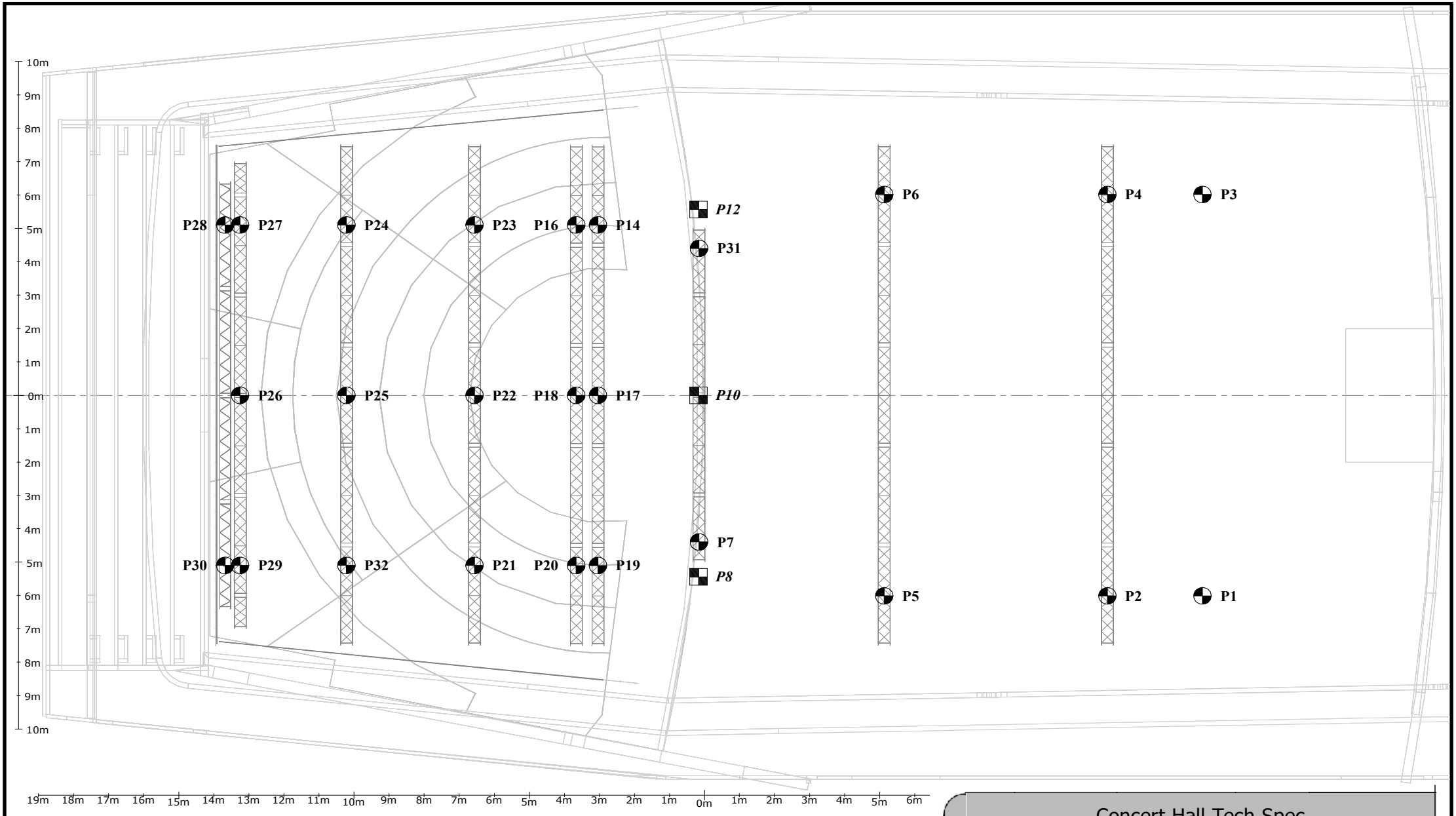
Patchlist

Venue: Malmö Live Concert Hall Updated: 2021-03-10

Patch	Channel/Fixture	Position	Manufacturer	Type	Mode	Wattage
1.114	114	Bridge	Robert Juliat	710SX	N/A	2000 W
1.115	115	Bridge	Robert Juliat	710SX	N/A	2000 W
1.116	116	Bridge	Robert Juliat	710SX	N/A	2000 W
1.117	117	Bridge	Robert Juliat	710SX	N/A	2000 W
1.118	118	Bridge	Robert Juliat	710SX	N/A	2000 W
1.119	119	Bridge	Robert Juliat	710SX	N/A	2000 W
1.120	120	Bridge	Robert Juliat	710SX	N/A	2000 W
1.122	122	Bridge	Robert Juliat	710SX	N/A	2000 W
1.124	124	Bridge	Robert Juliat	710SX	N/A	2000 W
1.125	125	Bridge	Robert Juliat	710SX	N/A	2000 W
1.126	126	Bridge	Robert Juliat	710SX	N/A	2000 W
1.127	127	Bridge	Robert Juliat	710SX	N/A	2000 W
1.128	128	Bridge	Robert Juliat	710SX	N/A	2000 W
1.129	129	Bridge	Robert Juliat	710SX	N/A	2000 W
1.130	130	Bridge	Robert Juliat	710SX	N/A	2000 W
1.131	131	Bridge	Robert Juliat	710SX	N/A	2000 W
1.132	132	Bridge	Robert Juliat	710SX	N/A	2000 W
1.133	133	Bridge	Robert Juliat	710SX	N/A	2000 W
1.134	134	Bridge	Robert Juliat	710SX	N/A	2000 W
1.135	135	Bridge	Robert Juliat	710SX	N/A	2000 W
1.141	141	Ceiling	Robert Juliat	710SX	N/A	2000 W
1.146	146	Ceiling	Robert Juliat	710SX	N/A	2000 W
1.148	148	Ceiling	Robert Juliat	710SX	N/A	2000 W
1.150	150	Ceiling	Robert Juliat	710SX	N/A	2000 W
1.151	151	Ceiling	Robert Juliat	710SX	N/A	2000 W
1.155	155	Ceiling	Robert Juliat	710SX	N/A	2000 W
	500	Bridge	Robert Juliat	Cyrano	N/A	2500 W
	501	Bridge	Robert Juliat	Cyrano	N/A	2500 W
1.190	201 / Cannel	Front Truss	ADB	Warp/M 12-30deg	N/A	800 W
2.100	201 / Fixture	Front Truss	ADB	Warp/M 12-30deg	N/A	900 W
1.191	202 / Channel	Front Truss	ADB	Warp/M 12-30deg	N/A	800 W
2.125	202 / Fixture	Front Truss	ADB	Warp/M 12-30deg	N/A	900 W
1.192	203 / Channel	Front Truss	ADB	Warp/M 12-30deg	N/A	800 W
2.150	203 / Fixture	Front Truss	ADB	Warp/M 12-30deg	N/A	900 W
1.193	204 / Cannel	Front Truss	ADB	Warp/M 12-30deg	N/A	800 W
2.175	204 / Fixture	Front Truss	ADB	Warp/M 12-30deg	N/A	900 W
1.194	205 / Channel	Front Truss	ADB	Warp/M 12-30deg	N/A	800 W
2.200	205 / Fixture	Front Truss	ADB	Warp/M 12-30deg	N/A	900 W
1.195	206 / Channel	Front Truss	ADB	Warp/M 12-30deg	N/A	800 W
2.225	206 / Fixture	Front Truss	ADB	Warp/M 12-30deg	N/A	900 W

4.253	301	LX4	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
4.288	302	LX4	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
4.323	303	LX4	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
4.358	304	LX4	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
4.393	305	LX4	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
4.428	306	LX4	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
3.253	307	LX3	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
3.288	308	LX3	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
3.323	309	LX3	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
3.358	310	LX3	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
3.393	311	LX3	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
3.428	312	LX3	Clay Paky	Aleda K20 B-EYE	Shapes	750 W
4.001	401	LX4	JB Lighting	P12	Mode 1	800 W
4.043	402	LX4	JB Lighting	P12	Mode 1	800 W
4.085	403	LX4	JB Lighting	P12	Mode 1	800 W
4.127	404	LX4	JB Lighting	P12	Mode 1	800 W
4.169	405	LX4	JB Lighting	P12	Mode 1	800 W
4.211	406	LX4	JB Lighting	P12	Mode 1	800 W
3.001	407	LX3	JB Lighting	P12	Mode 1	800 W
3.043	408	LX3	JB Lighting	P12	Mode 1	800 W
3.085	409	LX3	JB Lighting	P12	Mode 1	800 W
3.127	410	LX3	JB Lighting	P12	Mode 1	800 W
3.169	411	LX3	JB Lighting	P12	Mode 1	800 W
3.211	412	LX3	JB Lighting	P12	Mode 1	800 W

APPENDIX IV



Concert Hall Tech Spec

Malmö Live Concerthall	**(All Layers)**
Lighting Designer Martin Berglund	
Cell +46708 308354	
Printed By Wysiwyg	**Print Time** Aug/21/19
	File onsertsal_Techspec_190611

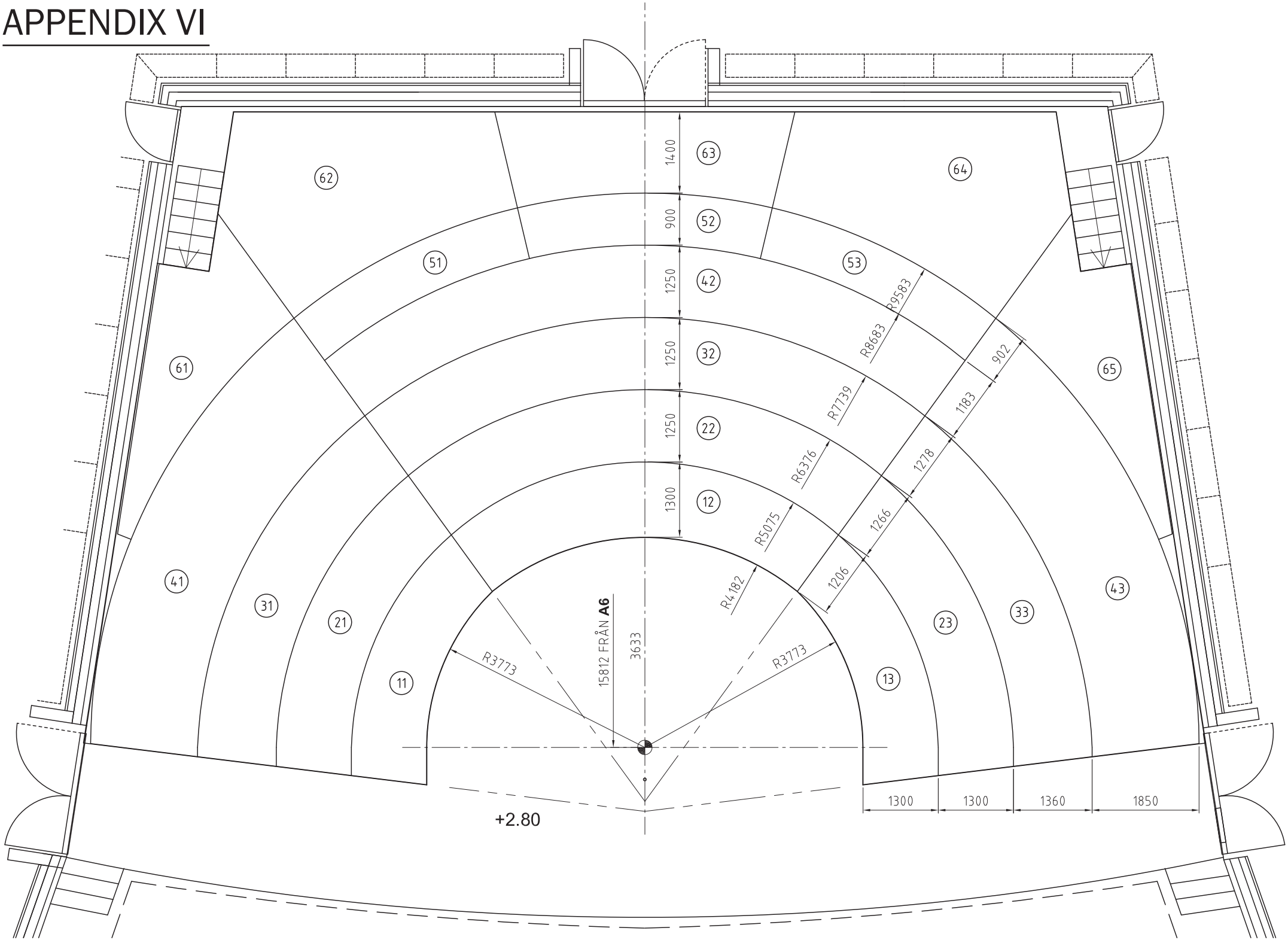
APPENDIX V

Rigging Position Points

Venue: Malmö Live Concert Hall Updated: 2021-03-10

Position	Name	Type	Capacity	Load
Screen Truss	P28	Lighting	500.00kg	337.00kg
Screen Truss	P30	Lighting	500.00kg	326.00kg
LX5	P26	Lighting	500.00kg	46.00kg
LX5	P27	Lighting	500.00kg	60.00kg
LX5	P29	Lighting	500.00kg	76.00kg
LX4	P24	Lighting	500.00kg	243.00kg
LX4	P25	Lighting	500.00kg	150.00kg
LX4	P32	Lighting	500.00kg	268.00kg
LX3	P21	Lighting	500.00kg	224.00kg
LX3	P22	Lighting	500.00kg	214.00kg
LX3	P23	Lighting	500.00kg	219.00kg
LX2	P16	Lighting	500.00kg	50.00kg
LX2	P18	Lighting	500.00kg	52.00kg
LX2	P20	Lighting	500.00kg	67.00kg
LX1	P14	Lighting	500.00kg	42.00kg
LX1	P17	Lighting	500.00kg	74.00kg
LX1	P19	Lighting	500.00kg	45.00kg
LX0	P7	Lighting	500.00kg	0.00kg
LX0	P31	Lighting	500.00kg	0.00kg
PA	P8	Audio	1000.00kg	162.00kg
PA / SUB	P10	Audio	1000.00kg	192.00kg
PA	P12	Audio	1000.00kg	162.00kg
LX-1	P5	Lighting	500.00kg	76.00kg
LX-1	P6	Lighting	500.00kg	70.00kg
Front Truss / LX -2	P2	Lighting	500.00kg	178.00kg
Front Truss / LX -2	P4	Lighting	500.00kg	181.00kg
LX-3	P1	Lighting	500.00kg	0.00kg
LX-3	P3	Lighting	500.00kg	0.00kg

APPENDIX VI


14.00
900
1250
1250
1250
1300
R9583
R8683
R7739
R6316
R5075
R4182
902
1183
1278
1266
1206
1300
1300
1360
1850
R3773
R3773
15812 FRÅN A6
3633
+2.80
11
12
13
21
22
23
31
32
33
41
42
43
51
52
53
61
62
63
64
65

APPENDIX VII

KKH Malmö
Kom.-Nr. 180012

Podiums
Loads

MALMÖ LIVE KONSERTHUS
www.malmolive.se

11.09.2014

Pos.	number	podium	area (A)	payload at stand still 500 kg/m2	payload in movement (*1) 250 kg/m2	test load in movement (*2)
1	2	concertpodium 11+13	5,6 m2	2800 kg	1400 kg	1750 kg
2	2	concertpodium 21+23	6,9 m2	3450 kg	1725 kg	2156 kg
3	2	concertpodium 31+33	8,5 m2	4250 kg	2125 kg	2656 kg
4	2	concertpodium 41+43	17,2 m2	8600 kg	4300 kg	5375 kg
5	1	concertpodium 12	8,4 m2	4200 kg	2100 kg	2625 kg
6	1	concertpodium 22	10,1 m2	5050 kg	2525 kg	3156 kg
7	1	concertpodium 32	12,2 m2	6100 kg	3050 kg	3813 kg
8	1	concertpodium 42	13,8 m2	6900 kg	3450 kg	4313 kg
9	2	concertpodium 51+53	3,7 m2	1850 kg	925 kg	1156 kg
10	1	concertpodium 52	3,8 m2	1900 kg	950 kg	1188 kg
11	2	concertpodium 62+64	12,8 m2	6400 kg	3200 kg	4000 kg
12	1	concertpodium 63	7,5 m2	3750 kg	1875 kg	2344 kg
13	2	concertpodium 61+65	7,4 m2	3700 kg	1850 kg	2313 kg
14	1	orchestra-elevator	39,5 m2	19750 kg	6950 kg	8688 kg
15	1	mixer-podium	10,0 m2	5000 kg	2500 kg	3125 kg

(*1) A <= 20 m2 : 250 kg/m2
(*1) A > 20 m2 : 250 kg/m2 for 20 m2 ; 100 kg/m2 for remaining area
(*2) = 1,25 x payload in movement